

Trend Study 10-14-00

Study site name: East Floy Bench .

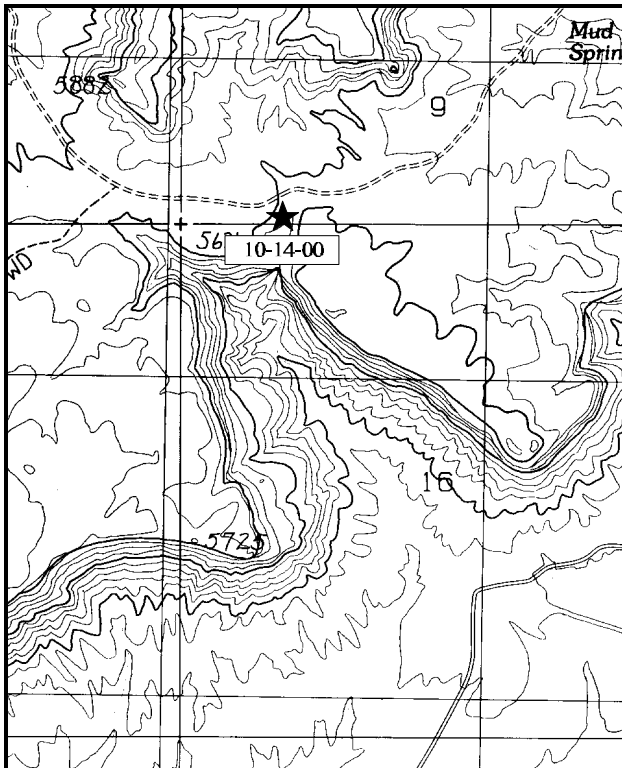
Range type: Big Sagebrush .

Compass bearing: frequency baseline 165°M.

First frame placement on frequency belts 5 feet. Frequency belt placement; line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft). Belt 3 rebar at 15ft.

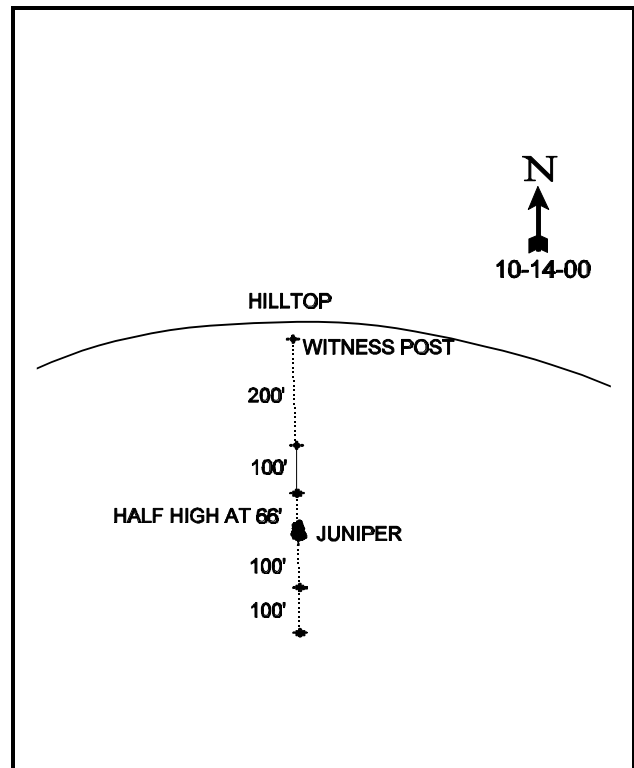
LOCATION DESCRIPTION

Go to Crescent Junction, off of I-70 east of Green River. From the dirt road 0.1 miles east of the gas station and SR 163 junction, cross the east-west running tracks and go north two miles on the main dirt road to a fork. Bear right and go 3.7 miles to a fork on top of a hill, stay left and climb out of the wash and up the west side of the canyon. Turn left. Continue 0.45 miles to the crest of a small hill. There is a rebar witness post 10 feet to the left. The 0-foot baseline stake, marked with a browse tag, is 200 feet south of the witness post.



Map Name: Crescent Junction

Township 21S , Range 19E , Section 9/16



Diagrammatic Sketch

UTM. 4317389.368 N, 602929.589 E

DISCUSSION

Trend Study No. 10-14 (16B-1)

The East Floy Bench transect is located on a low lying bench running along the south end of the Book Cliffs. The bench has a north aspect with a 3-5% slope and an elevation of 5,600 feet. This sagebrush-pinyon-juniper flat drops off abruptly at the southern edge to the salt desert below. This study is located on BLM administered land in the Floy Creek Allotment. In 1986, it was grazed by 1,208 sheep from mid-November to mid-April. This allotment was converted to cattle use after 1995. Grazing is currently permitted from November 1st through April 20 for cows at 958 AUM's on a 4 pasture deferred rotation system. Pellet group quadrat frequencies in 1995 and 2000 indicate light to moderate deer use, occasionally light use by elk, and high rabbit use. Pellet group transect data from 2000 estimated 27 deer days use/acre (67 ddu/ha), 7 elk days use/acre (17 edu/ha), and 18 cow days use/acre (44 cdu/ha).

The sandy loam soil is moderately deep, although, there are large areas of exposed and shallow covered sandstone bedrock. Chemical analysis indicates the soil is low in phosphorus at 4.3 ppm where 10 ppm has been shown to be necessary for normal plant growth and development. The soil is neutral in reactivity (pH of 7.0) and organic matter is low at less than 1%. A profile stoniness index estimated from penetrometer readings show the majority of the rockiness to occur between 8 and 12 inches in depth. Effective rooting depth is nearly 13 inches with average soil temperature being 62°F at 11 inches in depth. Bare ground is abundant on this site. In 1995, bare ground cover was estimated at 39%, increasing to over 57% in 2000. Average cover from vegetation and litter both decreased in 2000. Some soil movement is evident in plant interspaces, but due to the gentle slope, erosion is light. Rock and pavement cover combine for less than 2% of the ground cover.

Wyoming big sagebrush is the key browse species with an estimated density of 2,700 plants/acre in 1986, declining to 1,060 plants/acre in 1995, and 940 plant/acre in 2000. The decrease in density after 1986 is due mainly to the increased sample size used beginning in mid-1992, evidenced by the lack of dead plants in 1995. Mature plants comprise the majority of the population in both 1995 and 2000. Recruitment from young plants was moderately high in 1995 at 23%, but decreased to only 4% in 2000. Percent decadency has varied between sampling years. Decadency was estimated at 19% in 1986, down to 2% in 1995, and 28% in 2000. The proportion of the population displaying poor vigor has slightly increased in successive years where it is currently estimated at 19%. Utilization was moderate to heavy in the 1986 sample, but has since decreased to a more moderate level. Heavy use decreased to 4% in 1995 and then up to 11% in 2000. A sample of sagebrush annual leader growth were measured in 2000 which showed an average of about 7 inches. The population appeared to be naturally thinning itself in response to extended drought with one out of every five plants sampled classified as dead in 1995. The ratio of live to dead plants has since improved. Increased decadency, decreased recruitment, and reduced vigor since 1995 is likely partially due to the extended drought.

Due to the larger sample size and better sample distribution used in 1995, considerably more browse species were sampled in 1995 and 2000. These species include: fourwing saltbush, winterfat, spiny hopsage, green ephedra, shadscale, rubber rabbitbrush, low rabbitbrush, slenderbush eriogonum, broom snakeweed, and cactus. Many of these species are preferred by wildlife and livestock, but most occur in low densities. These shrubs show light to moderate utilization in 1995 and 2000. In 1995, most of these species had good vigor, with poor vigor increasing on fourwing and spiny hopsage in 2000. Broom snakeweed was the most abundant shrub in 1986 and 1995, but has since decreased to only 960 plants/acre in 2000. This species is vulnerable to drought conditions and is most likely decreasing due to the extended drought. Point center-quarter data estimates a low number of juniper trees in both 1995 and 2000 (16 trees/acre).

From 1986 to 1995, there was a significant decline in sum of nested frequency for perennial grasses. Galleta, bottlebrush squirreltail, and needle-and-thread all declined in 1995. In 2000, sum of nested frequency for perennial grasses slightly increased. Galleta and needle-and-thread remain stable, while bottlebrush squirreltail

significantly increased in nested frequency. Cheatgrass and sixweeks fescue, both annuals, significantly decreased in nested frequency in 2000. Forbs have been sparse in all sampling years, but especially so in 2000, where only two annual species were sampled.

1986 APPARENT TREND ASSESSMENT

Data and observations indicate an apparent slight downward trend under the current winter sheep grazing regime. The palatable shrubs are moderately to heavily hedged and generally declining in vigor and reproductive success. The Wyoming big sagebrush population has an encouraging amount of young plants, however, broom snakeweed and juniper appear to be increasing. Of particular concern is the fact that unless the new grazing plan includes a reduction in sheep AUM's, excessive shrub utilization will result in pastures that are not rested. This sagebrush range gradually gives way to the more traditional salt desert shrub sheep winter range at lower elevations. Management strategies should strive to minimize sheep use on critical big game winter range and limit winter use to the lower elevational areas. The soil is stable, but would benefit from less disturbance.

1995 TREND ASSESSMENT

Although this area had early spring precipitation, the rest of the summer was drier than usual. The early spring precipitation likely did not benefit the perennial grasses due to the abundance of cheatgrass. Perennial grass species compete poorly for soil moisture with cheatgrass when moisture only comes in the winter and spring, especially when cheatgrass is abundant. Although grasses provide 50% of the total vegetative cover on the site, the sum of nested frequency for perennial grass has declined by nearly 50% since 1986. For this reason, the herbaceous understory trend is downward with a notably poor forb component. The browse trend for this site appears to be stable. The Wyoming big sagebrush population has good biotic potential with nearly one-fourth of the population classified as young plants. Also, the intensity of hedging has shifted from heavy to moderate with a declining percent decadency. Some soil movement is evident, but due to the gentle slope, vegetative cover, and cryptogamic crust cover, the movement is slight. Therefore, soil trend is considered stable.

TREND ASSESSMENT

soil - stable (3)

browse - stable (3)

herbaceous understory - downward and dominated by poor value annual forbs and annual grasses (1)

2000 TREND ASSESSMENT

Trend for soil is slightly down with a large increase in bare ground cover and decreases in cover from herbaceous vegetation and litter. The ratio of protective ground cover to bare soil is low at 2:1. Trend for browse is slightly down. Wyoming big sagebrush has increased decadency and poor vigor, as well as decreased recruitment from 23% in 1995 to 4% in 2000. Other less abundant palatable species such as fourwing saltbush, spiny hopsage, and shadscale have high decadency rates. Trend for the herbaceous understory is stable with a slight increase in sum of nested frequency for perennial grasses.

TREND ASSESSMENT

soil - slightly down (2)

browse - slightly down (2)

herbaceous understory - stable (3)

HERBACEOUS TRENDS --

Herd unit 10 , Study no: 14

T y p e	Species	Nested Frequency			Quadrat Frequency			Average Cover %	
		'86	'95	'00	'86	'95	'00	'95	'00
G	<i>Aristida purpurea</i>	a ⁻	ab ¹	b ⁷	-	1	4	.03	.07
G	<i>Bromus tectorum</i> (a)	-	b ³¹⁸	a ⁵⁶	-	97	25	6.72	1.10
G	<i>Elymus salina</i>	a ⁻	b ¹⁵	b ¹³	-	5	6	1.10	.18
G	<i>Hilaria jamesii</i>	b ¹⁵⁶	a ⁶⁵	a ⁷⁶	66	27	30	1.10	2.01
G	<i>Oryzopsis hymenoides</i>	b ³⁶	b ³⁷	a ¹⁷	21	19	8	1.91	.30
G	<i>Sitanion hystrix</i>	b ⁴⁰	a ⁷	a ²	17	4	1	.07	.03
G	<i>Sporobolus cryptandrus</i>	a ⁻	a ⁵	b ⁶³	-	2	27	.03	1.58
G	<i>Stipa comata</i>	b ⁹²	a ⁴⁰	a ³⁹	42	19	15	.92	.93
G	<i>Vulpia octoflora</i> (a)	-	b ⁷⁵	a ⁴	-	27	2	.21	.01
Total for Annual Grasses		0	393	60	0	124	27	6.93	1.11
Total for Perennial Grasses		324	170	217	146	77	91	5.18	5.12
Total for Grasses		324	563	277	146	201	118	12.11	6.23
F	<i>Chenopodium leptophyllum</i> (a)	-	2	-	-	1	-	.00	-
F	<i>Descurainia pinnata</i> (a)	-	3	-	-	1	-	.00	-
F	<i>Draba</i> spp. (a)	-	b ¹⁷	a ⁻	-	5	-	.02	-
F	<i>Eriogonum cernuum</i> (a)	-	b ¹⁰	a ⁻	-	4	-	.02	-
F	<i>Erigeron pumilus</i>	-	5	-	-	3	-	.01	-
F	<i>Lappula occidentalis</i> (a)	-	b ⁶⁷	a ⁻	-	24	-	.12	-
F	<i>Plantago patagonica</i> (a)	-	b ⁴²	a ⁻	-	17	-	.09	-
F	<i>Ranunculus testiculatus</i> (a)	-	-	1	-	-	1	-	.00
F	<i>Salsola iberica</i> (a)	-	-	2	-	-	1	-	.00
F	<i>Tragopogon dubius</i>	3	-	-	1	-	-	-	-
Total for Annual Forbs		0	141	3	0	52	2	0.26	0.00
Total for Perennial Forbs		3	5	0	1	3	0	0.01	0
Total for Forbs		3	146	3	1	55	2	0.28	0.00

Values with different subscript letters are significantly different at % = 0.10 (annuals excluded)

BROWSE TRENDS --

Herd unit 10 , Study no: 14

T y p e	Species	Strip Frequency		Average Cover %	
		'95	'00	'95	'00
B	<i>Artemisia tridentata</i> <i>wyomingensis</i>	24	21	4.20	3.29
B	<i>Atriplex canescens</i>	7	7	.56	.15
B	<i>Atriplex confertifolia</i>	4	5	.03	.88
B	<i>Ceratoides lanata</i>	6	2	.45	.15
B	<i>Chrysothamnus nauseosus</i> <i>consimilis</i>	1	0	-	-
B	<i>Chrysothamnus viscidiflorus</i> <i>stenophyllus</i>	9	7	.15	.44
B	<i>Ephedra viridis</i>	1	4	-	1.50
B	<i>Eriogonum microthecum</i>	2	0	.00	-
B	<i>Grayia spinosa</i>	5	2	.33	.15
B	<i>Gutierrezia sarothrae</i>	80	27	3.82	.32
B	<i>Juniperus osteosperma</i>	0	0	2.25	3.11
B	<i>Opuntia</i> spp.	1	4	-	.03
Total for Browse		140	79	11.82	10.05

CANOPY COVER --

Herd unit 10 , Study no: 14

Species	Percent Cover '00
<i>Juniperus osteosperma</i>	4

BASIC COVER --

Herd unit 10 , Study no: 14

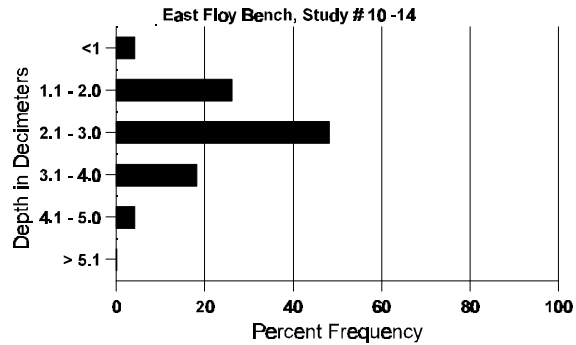
Cover Type	Nested Frequency		Average Cover %		
	'95	'00	'86	'95	'00
Vegetation	337	224	2.25	23.38	17.85
Rock	42	12	0	1.45	1.17
Pavement	66	44	0	.44	.42
Litter	387	351	35.75	31.51	24.85
Cryptogams	235	220	2.50	10.39	10.03
Bare Ground	335	364	59.50	39.23	57.54

SOIL ANALYSIS DATA --

Herd Unit 10, Study # 14, Study Name: East Floy Bench

Effective rooting depth (inches)	Temp °F (depth)	pH	% sand	% silt	% clay	% OM	PPM P	PPM K	dS/m
12.76	62.0 (11.02)	7.0	60.0	23.4	16.6	0.6	4.3	185.6	0.5

Stoniness Index



PELLET GROUP FREQUENCY --

Herd unit 10 , Study no: 14

Type	Quadrat Frequency		Pellet Transect	
	'95	'00	Pellet Groups per Acre 00	Days Use per Acre (ha) 00
Sheep	7	4	-	-
Horse	-	-	35	N/A
Rabbit	58	42	435	N/A
Bighorn	-	-	44	N/A
Elk	5	3	87	7 (17)
Deer	20	15	348	27 (67)
Cattle	-	2	218	18 (44)

BROWSE CHARACTERISTICS --

Herd unit 10 , Study no: 14

A Y G R		Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
E		1	2	3	4	5	6	7	8	9	1	2	3	4				
Artemisia tridentata wyomingensis																		
S	86	2	-	-	-	-	-	-	-	-	2	-	-	-	66		2	
	95	7	-	-	-	-	-	-	-	-	7	-	-	-	140		7	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	86	21	5	4	-	-	-	-	-	-	29	-	1	-	1000		30	
	95	3	9	-	-	-	-	-	-	-	9	-	-	3	240		12	
	00	1	1	-	-	-	-	-	-	-	2	-	-	-	40		2	
M	86	-	11	16	2	3	4	-	-	-	31	1	4	-	1200	15 14	36	
	95	16	22	2	-	-	-	-	-	-	37	-	-	3	800	23 39	40	
	00	1	14	3	2	11	1	-	-	-	32	-	-	-	640	24 41	32	
D	86	-	6	7	-	-	2	-	-	-	15	-	-	-	500		15	
	95	1	-	-	-	-	-	-	-	-	-	-	-	1	20		1	
	00	6	4	-	-	2	1	-	-	-	4	-	-	9	260		13	
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	220		11	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	60		3	
% Plants Showing		Moderate Use			Heavy Use			Poor Vigor			%Change							
'86		31%			41%			06%			-61%							
'95		58%			04%			13%			-11%							
'00		68%			11%			19%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	2700	Dec:	19%			
												'95	1060		2%			
												'00	940		28%			
Atriplex canescens																		
S	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	95	6	-	-	-	-	-	-	-	-	6	-	-	-	120	27 37	6	
	00	1	-	-	-	-	-	-	-	-	1	-	-	-	20	23 28	1	
D	86	1	2	4	2	-	1	-	-	-	6	-	2	2	333		10	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	8	1	-	1	4	-	-	-	-	3	-	-	11	280		14	
% Plants Showing		Moderate Use			Heavy Use			Poor Vigor			%Change							
'86		20%			50%			40%			-58%							
'95		00%			00%			00%			+53%							
'00		33%			00%			73%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	333	Dec:	100%			
												'95	140		0%			
												'00	300		93%			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Atriplex confertifolia																		
S	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	4	-	-	-	-	-	-	-	-	4	-	-	-	80		4	
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	95	1	3	1	-	-	-	-	-	-	5	-	-	-	100	22	5	
	00	1	-	-	-	-	-	-	-	-	1	-	-	-	20	21	1	
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	1	-	-	-	5	-	-	-	-	6	-	-	-	120		6	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		60%			20%			00%			+38%							
'00		63%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	0	Dec:	0%			
												'95	100		0%			
												'00	160		75%			
Ceratoides lanata																		
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	1	-	-	-	-	-	-	-	1	-	-	-	20		1	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	95	1	2	-	2	7	-	-	-	-	12	-	-	-	240	15	12	
	00	6	3	-	-	-	-	-	-	-	9	-	-	-	180	13	9	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		77%			00%			00%			-31%							
'00		33%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	0	Dec:	-			
												'95	260		-			
												'00	180		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Chrysothamnus nauseosus consimilis																		
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0	21	20	0
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	95	1	-	-	-	-	-	-	-	-	-	-	-	-	20			1
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		00%			00%			00%										
'00		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	0	Dec:	0%			
												'95	20		100%			
												'00	0		0%			
Chrysothamnus viscidiflorus stenophyllus																		
S	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	00	1	-	-	-	-	-	-	-	-	-	-	-	-	20			1
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	95	3	-	-	-	-	-	-	-	-	-	-	-	-	60			3
	00	1	-	-	-	-	-	-	-	-	-	-	-	-	20			1
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	95	3	-	-	2	-	-	-	-	-	-	-	-	-	100	16	34	5
	00	7	-	1	-	-	-	-	-	-	-	-	-	-	160	13	28	8
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	95	2	-	-	-	-	-	-	-	-	-	-	-	-	40			2
	00	1	-	-	-	-	-	-	-	-	-	-	-	-	20			1
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	80			4
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		00%			00%			10%			+ 0%							
'00		00%			10%			10%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	0	Dec:	0%			
												'95	200		20%			
												'00	200		10%			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Ephedra viridis																		
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	1	-	-	-	-	-	1	-	-	-	20		1	
	00	2	2	-	-	-	-	-	-	-	4	-	-	-	80		4	
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0	63	0	
	00	-	3	2	-	-	-	-	-	-	5	-	-	-	100	25	5	
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	-	1	-	-	-	-	-	-	-	1	-	-	-	20		1	
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		00%			00%			00%			+90%							
'00		60%			20%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	0	Dec:	0%			
												'95	20		0%			
												'00	200		10%			
Eriogonum microthecum																		
Y	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	95	2	-	-	4	-	-	-	-	-	6	-	-	-	120	-	6	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		00%			00%			00%										
'00		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	0	Dec:	-			
												'95	140		-			
												'00	0		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Grayia spinosa																		
M	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	95	2	-	-	1	-	-	-	-	-	-	3	-	-	60	25	44	3
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0	23	44	0
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	95	3	-	-	-	-	-	-	-	-	-	3	-	-	60			3
	00	-	-	-	-	2	-	-	-	-	-	-	-	-	40			2
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		00%			00%			00%			-67%							
'00		100%			00%			100%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	0	Dec:	0%			
												'95	120		50%			
												'00	40		100%			
Gutierrezia sarothrae																		
S	86	10	-	-	-	-	-	-	-	-	10	-	-	-	333			10
	95	1	-	-	1	-	-	-	-	-	2	-	-	-	40			2
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
Y	86	112	-	-	-	-	-	-	-	-	112	-	-	-	3733			112
	95	4	-	-	1	-	-	-	-	-	5	-	-	-	100			5
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
M	86	129	-	-	-	-	-	-	-	-	129	-	-	-	4300	8	7	129
	95	295	-	-	7	-	-	-	-	-	302	-	-	-	6040	9	11	302
	00	28	-	-	5	-	-	-	-	-	33	-	-	-	660	6	8	33
D	86	5	-	-	-	-	-	-	-	-	5	-	-	-	166			5
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	00	14	-	-	-	1	-	-	-	-	7	-	1	7	300			15
X	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	1500			75
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%			-25%							
'95		00%			00%			00%			-84%							
'00		02%			00%			17%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	8199	Dec:	2%			
												'95	6140		0%			
												'00	960		31%			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Juniperus osteosperma																		
Y	86	1	-	-	-	-	-	-	-	-	1	-	-	-	33		1	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	86	1	-	-	-	-	-	-	-	-	1	-	-	-	33	71	71	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	00	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%										
'95		00%			00%			00%										
'00		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	66	Dec:	-			
												'95	0		-			
												'00	0		-			
Opuntia spp.																		
M	86	1	-	-	-	-	-	-	-	-	1	-	-	-	33	7	1	
	95	1	-	-	-	-	-	-	-	-	1	-	-	-	20	5	21	
	00	3	-	-	-	-	-	-	-	-	3	-	-	-	60	6	21	
D	86	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	95	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	00	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'86		00%			00%			00%			-39%							
'95		00%			00%			00%			+75%							
'00		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'86	33	Dec:	0%			
												'95	20		0%			
												'00	80		25%			